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OUTCOMES OF PERCUTANEOUS REPAIR OF POST-INFARCTION VENTRICULAR SEPTAL RUPTURE IN ACUTE MYOCARDIAL INFARCTION: A META-ANALYSIS

Poster Contributions
Poster Hall B1
Sunday, March 15, 2015, 3:45 p.m.-4:30 p.m.

Session Title: Pharmacotherapy and Complex Coronary Interventions
Abstract Category: 37. TCT@ACC-i2: Mitral and Structural Heart Disease
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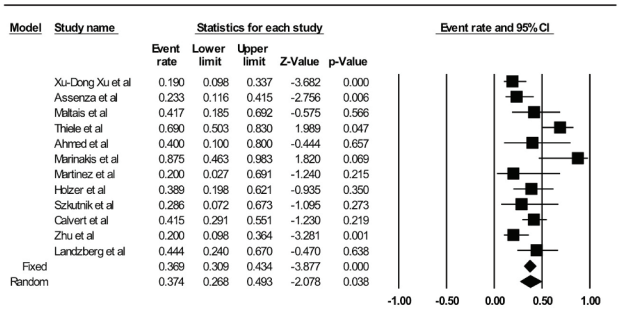
Background: Postinfarction ventricular septal defect (VSD) is a rare but deadly complication of acute myocardial infarction. One-month mortality is 94% without intervention. Percutaneous VSD repair is an emerging treatment, but there is a paucity of data examining this approach. We pooled patient data from all available studies examining percutaneous VSD repair.

Methods: We searched SCOPUS since inception to August 2014 using predefined criteria. Twelve studies were eligible for our analysis. Standard meta-analytic methods were used to estimate survival at hospital discharge, all-cause mortality at completion of follow up, and procedural success.

Results: Among 12 studies, 220 patients underwent percutaneous postinfarction VSD closure. Procedure success rate was 89% (95% CI 84%-93%). Survival to hospital discharge rate was 66% (95% CI 53%-77%). Patients were followed for a mean of 19 months and had all-cause mortality rate of 37% (95% CI 27%-50%). (Figure 1)

Conclusion: Current mortality rates of surgical VSD repair vary between 20%-40%. Percutaneous VSD repair is a viable alternative for most patients experiencing postmyocardial infarction VSD.

Figure 1



All Cause Mortality

Meta Analysis